

From: [Abrams, Nancy](#)
To: [Ruminski, Andrea K CIV USARMY CESPD \(US\)](#) <[Koger, Cory S CIV USARMY CESPK \(US\)](#)>
Cc: [R6HarveyInfo](#)
Subject: FW: OW Management Report for Hurricane Harvey and Hurricane Irma for 9/18/2017
Date: Monday, September 18, 2017 3:06:36 PM
Attachments: [OW Management Report_Harvey_Irma_9182017.docx](#)

FYSA

From: EOC Water

Sent: Monday, September 18, 2017 3:03 PM

To: Apanian, David M. <Apanian.David@epa.gov>; Bissonette, Eric <Bissonette.Eric@epa.gov>; Brown, Jamesr <brown.jamesr@epa.gov>; Carroll, Craig <Carroll.Craig@epa.gov>; Casillas, Laura <Casillas.Laura@epa.gov>; Cooper, Tiffany <Cooper.Tiffany@epa.gov>; Dwyer, Stacey <Dwyer.Stacey@epa.gov>; EOC Environmental Unit <EOC_Environmental_Unit@epa.gov>; EOC Situation Unit <EOC_Situation_Unit@epa.gov>; Eoc, Epahq <Eoc.Epahq@epa.gov>; FEMA R2 ESF#10 Desk <R2-ohul@fema.dhs.gov>; FEMA-NRCC-ohs@fema.dhs.gov; fema-nrcc-ohul@fema.dhs.gov; Fencil, Jeffrey <Fencil.Jeffrey@epa.gov>; Forsgren, Lee <Forsgren.Lee@epa.gov>; Foster, Althea <Foster.Althea@epa.gov>; Geliga, Jaime <Geliga.Jaime@epa.gov>; Goldbloom-Helzner, David <Goldbloom-Helzner.David@epa.gov>; Gray, David <gray.david@epa.gov>; Greenwalt, Sarah <greenwalt.sarah@epa.gov>; Honker, William <honker.william@epa.gov>; Hosch, Claudia <hosch.claudia@epa.gov>; Ison, Dawn <ison.dawn@epa.gov>; Liguori, Alex <liguori.alex@epa.gov>; McCasland, Mark <McCasland.Mark@epa.gov>; Newberry, Debbie <Newberry.Debbie@epa.gov>; Ngo, Kim <Ngo.Kim@epa.gov>; Oh, Peter <Oh.Peter@epa.gov>; OW SES Managers and Supervisors <OW_SES_Managers_and_Supervisors@epa.gov>; Pabst, Douglas <Pabst.Douglas@epa.gov>; Pellegrino, Carl <Pellegrino.Carl@epa.gov>; Pickard, Brian <Pickard.Brian@epa.gov>; Restivo, Angela <Restivo.Angela@epa.gov>; Rodriguez, Jose <Rodriguez.Jose@epa.gov>; Senft, Lea <senft.lea@epa.gov>; Smalley, Bryant <smalley.bryant@epa.gov>; Thomas, Chris <Thomas.Chris@epa.gov>; Tiago, Joseph <Tiago.Joseph@epa.gov>; Tingley, Kevin <Tingley.Kevin@epa.gov>; Tricas, Marisa <tricas.marisa@epa.gov>; Waite, Andrew <Waite.Andrew@epa.gov>; Watson, Jane <watson.jane@epa.gov>; Wisniewski, Patti-Kay <Wisniewski.Patti-Kay@epa.gov>; Young, Dwane <Young.Dwane@epa.gov>; Abrams, Nancy <Abrams.Nancy@epa.gov>

Subject: OW Management Report for Hurricane Harvey and Hurricane Irma for 9/18/2017

Attached and pasted below is the OW Management Report for Hurricane Harvey and Hurricane Irma for 9/18/2017.

Kevin Tingley
EOC Water Desk

Hurricane Harvey Update (note: Hurricane Irma report starts on page 2)

EPA HQ:

Water Desk Staffing for the coming week is as follows:

Monday 9/18: Kevin Tingley

Tuesday 9/19 – Wednesday 9/20: Rich Weisman

Thursday 9/21: Kevin Tingley

Friday 9/22: Jenny Upton

Saturday 9/23: Jenny Upton

EPA Activities: Region 6:

Drinking Water / Wastewater Assessments

Drinking water and wastewater assessment teams completed their emergency assessments of community water systems and have demobilized.

Drinking Water: From TCEQ website as of 9/17/17. Updated information highlighted.

	Number of Drinking Water Systems	Population
Fully Operational	2,228	NA
Boil Water Notices	70	31,877
Shutdown	6	1,136

Wastewater and Sewage: From TCEQ website as of 9/17/17.

	Number of Wastewater Treatment Plants
Fully Operational	1,671
Inoperable	10
Operating with Issues	41

Note: maps showing status of drinking water and wastewater facilities have been removed from Region 6 reporting.

Hurricane Irma Update

Background:

Many area rivers continue in moderate to major flood stages as a result of high rain totals from Hurricane Irma. Most have crested or are near crest or will crest during the next couple of days. Any additional rainfall will exacerbate river flooding and residents living along rivers or faster flowing streams should remain aware of water levels and be ready to move to higher ground should flooding be observed or worsen.

Local/State Activities:

Puerto Rico and U.S. Virgin Islands

The Puerto Rico (PR) Emergency Operations Center and U.S. Virgin Islands (USVI) Territorial Emergency Management Agency (EMA) are at Full Activation. The respective Governors have

declared states of emergency. The PR National Guard and USVI National Guard have been activated.

The USVI Governor requested an Emergency Declaration on September 17, 2017 as a result of Hurricane Maria beginning on September 16, 2017 and continuing.

Florida

Florida is currently operating at their highest level of activation - Level 1, with the State Emergency Operations Center (SEOC) staffed by Division of Emergency Management personnel and all Emergency Support Functions. The EPA Region 4 continues to staff the SEOC in Tallahassee, Florida.

Georgia

The State of Georgia ESF-3 Desk is responding to resource requests from drinking water and wastewater facilities and receiving reports of status at the same time. Georgia Rural Water Association (GRWA) is assisting the state in making calls to check assessment status. GAEPD regional offices are making calls to water facilities and reporting this information to the state ESF-3 desk. GAWARN (municipal mutual aid network for water and wastewater) and GRWA have both been assisting with fulfilling resource requests. No requests for federal assistance have been made for water and wastewater facility assessments or for temporary power supply.

Miccosukee Tribe: Two EOCs at Full Activation

Seminole Tribe of Florida: EOC at Full Activation

Alabama: EOC at Partial Activation

Tennessee: EOC at Monitoring

Mississippi: EOC at Partial Activation

Federal Activities:

FEMA Region II

- o RRCC: Level II (day shift); Level III (night shift) with select ESFs; transitioning to Level II (24/7) at 8:00 p.m. EDT
- o RII IMAT deployed to St. Croix, USVI
- o RX IMAT deployed to St. Thomas, USVI; 4 members en route to Atlanta

FEMA Region IV:

- o RRCC: Level II (24/7); RWC: Steady State
- o R-IV IMAT-1 & R-I IMAT: deployed to FL; R-IV IMAT-2 deployed to GA
- o LNOs deployed to FL, SC, GA, AL and Seminole Tribe EOCs

Many FEMA Responders in PR and USVI will relocate to CONUS in order to mitigate any strain on local resources for TS Maria

EPA Activities:

Region 2:

With the approach of Tropical Storm Maria, FEMA has directed that responding agencies re-position the USVI. All EPA personnel will be evacuating the USVI to the U.S. mainland. EPA is developing a re-position plan and a communications plan to track the locations, contact information, rally points and communications schedule for evacuating personnel.

EPA response personnel in PR are being demobilized as planned and have been directed by the RIC to return to the U.S. mainland. Air flights are difficult to arrange and some employees may have to ride out the storm in PR.

After the storm passes and initial assessments are complete for storm impacts to PR and USVI, EPA personnel will be re-deployed from both PR and the U.S. mainland.

Region 4:

The EPA Region 4 Water Protection Division (WPD) received funding totaling \$75,000 under an ESF-3 MA sub-task to support the U.S. Army Corps of Engineers (USACE) drinking water and wastewater facility assessments. The WPD continues to coordinate with the Florida Department of Environmental Protection (FDEP) and the USACE. [More information is below under 'Drinking Water and Wastewater System Status – Florida'](#)

Drinking Water and Wastewater System Status:

Region 2:

No new information to report.

Puerto Rico Drinking Water Status: As of 10:30 am 9/17, PRASA is back to normal operations in providing drinking water services to the population. This does not include the non-PRASA systems which account for 4% of the PR population, but as explained below non-PRASA systems have not suffered serious damages.

PRASA: All PRASA waste water treatment plants are in service. CEPD continued inspections of Sanitary Pump Stations in PRASA's North Region on 9/14/2017 and the Culebra WWTP. Inspections performed indicated that there are no major issues at the facilities. The only remaining inspections are 5 pump stations in PRASA's East Region that will be conducted on 9/15/2017 and the Vieques WWTP which will be done next Tuesday.

PREPA: 94% of population with power, 99% expected by 9/15. All PREPA waste water treatment plants are in service.

Non-PRASA Drinking Water Status: CEPD and PRDOH contacted most of the non-PRASA systems between Tuesday and Wednesday. No major problems found. The systems without service were due to the lack of primary power. CEPD believes that there is no need to conduct assessments at the non-PRASA systems since there are no major problems encountered.

Facility Assessment Team went to PRASA Bayamon Waste Water Treatment Plant on 09/16 to follow-up on a chlorine release that occurred at 0130 hours on 09/16. The team was notified of the release by the R2 REOC based on an NRC Hotline report. The incident was not related to Hurricane Irma damage. A regulator had a seal leak, the alarms sounded, and the facility personnel were able to remove the cylinder out of service. No injuries or exposures occurred. The amount of the release was estimated by facility personnel to be less than 5 pounds. This facility (FRS #: 110002151983) was assessed by PDA Team 2 on 09/12 and there was no impact from Hurricane Irma.

USVI Drinking Water Status: On 9/11 VIWAPA started operating the Reverse Osmosis plant in STT for WAPA distribution. WAPA previously used desalination but has switched to RO, run by Seven Seas. Boil water notice was issued for STT and STJ. The chlorination systems are fully functional. CEPD requested assistance from the OSCs stationed in STT to conduct assessments of drinking water providers.

USVI Wastewater: According to a report provided by Waste Management Authority, 6 of the 8 municipal wastewater treatment plants are in service. The only facility not in service is Vessup in Saint Thomas and the assessment of the George Simmonds WWTP has not been completed due to lack of access. In addition, WMA indicated that 4 of the 15 sanitary pump stations in Saint Thomas and Saint John are not in service. During a conversation held with DPNR on 9/12/2017, DPNR stated that they will request assistance from EPA to conduct assessments at the TPDES facilities in Saint Thomas and Saint John. On 9/13/2017, CEPD requested the OSCs deployed in St. Thomas to assess the wastewater treatment plants and pump stations in Saint Thomas and Saint John.

EPA discussed with the Virgin Islands Department of Planning and Natural Resource (DPNR) the drinking water station sampling to be done by EPA/DPNR personnel. The bacteriological lab on STT has obtained a generator and will be on line to accept drinking water samples for coliform analyses.

Region 4:

Florida:

Water Team Deployment

USACE and EPA's Water team continues to assist FDEP with assessing status of drinking water and wastewater systems while working from FDEP office. The primary focus since co-locating on September 15 has been on determining the operational status of drinking water systems. Since about mid-day on September 15 approximately 900 calls have been made. USACE requested additional EPA personnel to assist in contacting utilities and EPA water team members in the EPA R4 office will attempt phone contact with facilities beginning on Monday September 18. The effort in the R4 office will focus on contacting wastewater facilities with a status of "unknown" while the Tallahassee DEP office will concentrate on contacting the remainder of the public water systems with an "unknown" status then on to those with a

status of “nonoperational.” USACE and EPA will be determining the appropriate timing to send teams into areas where there is a need for eyes on facilities.

For 9/16/17 colocation has progressed on determining the correct operational status and resources needs of 82 facilities and reflecting that status/need in Storm Tracker. USACE and EPA will discuss with DEP the next phase of effort and most effective means to assess water and wastewater system that may include physical visits. Additionally, current data is being reviewed to determine areas that would benefit most by a deployed resource, most likely generators. Resource requests are entered into FlaWARN, but then require data entry into EM Constellation to produce a mission number (work order) this is causing a backlog. The Water team will work to reduce this backlog and perhaps continue call down efforts from a remote location. The Water team is also working to determine the process FL will use for portable (e.g. – trailer or skid mounted) water treatment systems potentially being brought into the state to provide emergency drinking water.

Boil Water Notices (BWN) A Boil Water Notice or advisories can be requested to be published on the Florida Department of Health’s website (<http://www.floridahealth.gov/environmental-health/drinking-water/boil-waternotices.html>) by a drinking water system or by DEP/DOH. The list is compiled from multiple sources, including press reports, utility data, and information from local authorities and DOH updates it at a minimum of once daily. Currently, the site lists 396 BWN issued since Sept 11, of which 51 have been rescinded, resulting in 345 active BNW.

Water and Wastewater System Assessments: Water and wastewater facilities continue to submit their requests for assistance. The WPD compiled a status of community drinking water systems (CWS) and POTW that may be used during post storm damage assessment in Florida (see the two tables below).

Total Number of Community Drinking Water Systems (CWS) and Total Population Served in Florida				
	Large CWS (Over 3,300)		Small CWS (under 3,300)	
	# Systems	Population Served	# Systems	Population Served
Operational:	370	18,641,995	845	552,487
Partially Operational:	20	664,947	37	36,780
Non Operational:	1	30,545	114	19,260
Unknown:	5	36,388	249	102,176
Totals:	396	19,285,494	1,245	710,703
Boil Water Notices	345 (396 issued – 51 rescinded)			
Comments: Data is compiled from the State of Florida's StormTracker system. The inventory of public water systems in StormTracker consists of all 1,630 Community Water Systems (CWS) and 11 non-community public water systems regulated by the State. These facilities were identified by Florida as the most critical for operational status determinations following major disasters. For convenience, all 1,641 facilities are reported as "CWS" in this table.				
Operational: Facility producing drinking water for greater than 90% of customers under normal operating conditions				
Partially Operational: Facility producing drinking water under adverse conditions and/or supplying less than 90% of customers				

Non Operational: Facility not producing or supplying drinking water

Unknown: Status of facility unknown at this time

Total Number of Publically Owned Wastewater Treatment Plants (POTWs) All Florida Counties			
	NPDES Permitted Facilities		State Permits (Non-NPDES)
	POTW	Non-POTW (Industrial)	
Operational:	128	153	752
Partially Operational:	5	4	59
Non Operational:	1	4	151
Unknown:	10	82	1,059
Totals:	144	243	2,021
<p>Comments: Data is compiled from the State of Florida's StormTracker system. The NPDES universe tracked in StormTracker represents a subset of the total inventory of NPDES permitted systems that are identified by the State of Florida as the most critical for operational status determinations following major disasters.</p> <p>This report shows that 89% of the POTWs are Operational, no change from the last report which was 89%.</p> <p>This report shows that 63% of the Non-POTW NPDES Permitted Facilities tracked in StormTracker are Operational, no change the last report of 63%.</p> <p><u>Operational:</u> Facility & associated collection system is properly conveying, and effectively providing wastewater treatment, in accordance with applicable permit conditions and regulations. (Operating on full or backup generator power.)</p> <p><u>Partially Operational:</u> Facility and/or associated collection system is properly conveying and providing wastewater treatment at a compromised capacity, i.e. one or more treatment train components are non-operational, one or more lift stations are non-operational, etc.</p> <p><u>Non Operational:</u> Facility and/or associated collection system is not providing wastewater treatment in accordance with applicable permit conditions and regulations.</p> <p><u>Unknown:</u> Status of facility unknown at this time</p>			

Georgia:

The Water Protection Division has maintained contact with Georgia, and offered assistance in contacting DW and WW systems to assess operational status. The state is utilizing central and district office staff, in collaboration with Rural Water Association personnel, to assess and report on facility status. To date, EPD has provided status updates for all community water systems with surface water sources. All community water systems utilizing ground water are being contacted by EPD District Offices. New resource requests are forwarded to the SOC ESF-3 desk for action. EPA receives updates on Georgia's facilities via State Situational Reports.

Total Number of Community Drinking Water Systems (CWS) and Total Population Served in Georgia		
	# Systems	Population Served
Operational:	186	7,203,619
Operational w/ Conditions:	8	53,917
Non Operational:	3	40,322
Unknown:	**	2,424,980
Totals:	1,749	8,917,820

Boil Water Notices	75 Boil Water Advisories reported to the SOC.
<u>Comments:</u> Data is compiled from data collected by Georgia EPD drinking water staff, EPD regional offices and the ESF-3 Water Desk at the Georgia SOC. The inventory of public water systems in <i>Georgia</i> consists of all 1,749 Community Water Systems (CWS). **EPD has provided status updates of all community water systems with surface water sources. All community water systems using ground water are being contact by EPD District Offices and associated resources requests are forwarded to the SOC ESF-3 desk. All community water systems using surface water as a source have been assessed.	
<u>Operational:</u> <i>Facility producing drinking water for greater than 90% of customers under normal operating conditions</i>	
<u>Operational with Conditions:</u> <i>Facility producing drinking water under consumer advisory, e.g., boil water advisories issued by water systems.</i>	
<u>Non Operational:</u> <i>Facility not producing or supplying drinking water</i>	

Federally Recognized Tribes:

SEMINOLE TRIBE OF FLORIDA (STOF)

STOF is executing their Emergency Fuel Plan that is used to keep their critical infrastructure powered (includes drinking water treatment).

• MICCOSUKEE TRIBE, POARCH CREEK TRIBE and EASTERN BAND OF CHEROKEE INDIANS

No significant updates reported.